18 N 10/661,100 **PATENT** 

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Gurtei S. Sandhu et al. icant: Examiner: Unknown erial No.: 10/661,100 2811 Group Art Unit:

Filed: September 12, 2003 Docket: 303.869US1 Title: MASKING STRUCTURE HAVING MULTIPLE LAYERS INCLUDING AN

AMORPHOUS CARBON LAYER

## SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with 37 C.F.R. §§ 1.97 et. seq., the enclosed materials are brought to the attention of the Examiner for consideration in connection with the above-identified patent application. Applicants respectfully request that this Supplemental Information Disclosure Statement be entered and the documents listed on the attached Form 1449 be considered by the Examiner and made of record. Pursuant to the provisions of MPEP 609, Applicants request that a copy of the 1449 form, initialed as being considered by the Examiner, be returned to the Applicants with the next official communication.

The attached documents were discovered as a result of a Search Report in Applicants' corresponding foreign patent application. Enclosed for the Examiner's information is a copy of the cited documents and the Search Report.

Pursuant to 37 C.F.R. §1.97(b), it is believed that no fee or statement is required with the Supplemental Information Disclosure Statement. However, if an Office Action on the merits has been mailed, the Commissioner is hereby authorized to charge the required fees to Deposit Account No. 19-0743 in order to have this Supplemental Information Disclosure Statement considered.

Serial No :10/661,100

Filing Date: September 12, 2003

Title: MASKING STRUCTURE HAVING MULTIPLE LAYERS INCLUDING AN AMORPHOUS CARBON LAYER

The Examiner is invited to contact the Applicants' Representative at the below-listed telephone number if there are any questions regarding this communication.

Pursuant to 37 C.F.R. 1.98(a)(2), Applicant believes that copies of cited U.S. Patents and Published Applications are no longer required to be provided to the Office. Notification of this change was provided in the United States Patent and Trademark Office OG Notices dated October 12, 2004. Thus, Applicant has not included copies of any US Patents or Published Applications cited with this submission. Should the Office require copies to be provided, Applicant respectfully requests that notice of such requirement be directed to Applicant's below-signed representative. Applicant acknowledges the requirement to submit copies of foreign patent documents and non-patent literature in accordance with 37 C.F.R. 1.98(a)(2).

Respectfully submitted, GURTEJ S. SANDHU ET AL.

By their Representatives, SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. P.O. Box 2938 Minneapolis, MN 55402 (612) 373-6969

Date th. 24 2025

Viet V. Tong

Reg. No. 45,416

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 25 day of February, 2005.

Name

Signature



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Gurtej S. Sandhu et al.

Title: MASKING STRUCTURE HAVING MULTIPLE LAYERS INCLUDING AN AMORPHOUS

**CARBON LAYER** 

Docket No.: 303.869US1 Serial No.: 10/661,100

Filed: September 12, 2003 Due Date: N/A

Examiner: Unknown Group Art Unit: 2811

Mail Stop Amendment

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

We are transmitting herewith the following attached items (as indicated with an "X"):

 $\underline{X}$  A return postcard.

- X A Supplemental Information Disclosure Statement (2 pgs.), Form 1449 (1 pg.), and copies of 7 cited documents
- X Copy of International Search Report and Written Opinion from corresponding forigen Application No. PCT/US2004/029209 (15 pgs.).

Please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

Customer Number 21186

Atty: Viet V. Tong

Reg. No. 45,416

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 25 day of February, 2005.

Name

Signature

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

(GENERAL)

Substitute for form 1449A/PTO Complete d Known INFORMATION DISCLOSURE **Application Number** 10/661,100 STATEMENT BY APPLICANT September 12, 2003 **Filing Date** (Use as many sheets as necessary) Sandhu, Gurtej First Named Inventor EB 2 8 2005 **Group Art Unit** 2811 Examiner Name Unknown Attorney Docket No: 303.869US1 Sheet 1 of 1

	US PATENT DOCUMENTS							
Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Filing Date If Appropriate				
	US-2001/0006837A1	07/05/2001	Kwon, S, et al.	12/14/2000				
	US-2002/0001778A1	01/03/2002	Latchford, I, et al.	08/02/2001				
	US-2002/0086547A1	07/04/2002	Mui, D. S., et al.	07/13/2001				
	US-4,975,144	12/04/1990	Yamazaki, S., et al.	03/17/1989				
	US-5,998,100	12/07/1999	Azuma, T.	09/05/1997				
	US-6,316,329	11/13/2001	Hirota, T., et al.	12/28/1999				
	US-6,331,380	12/18/2001	Ye, Y., et al.	04/14/2000				
	US-6,566,757	05/20/2003	Banerjee, I.	03/01/2000				
	US-6,653,735	11/25/2003	Yang, C. Y., et al.	07/30/2002				

FOREIGN PATENT DOCUMENTS									
Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	T <sup>2</sup>					
	EP-0531232A2	03/10/1993	Franke, H. G., et al.						
	EP-1154468A2	11/14/2001	Fairbairn, K., et al.						
	JP-58-204534A	11/29/1983	Obayashi, H , et al.						
	WO-03038875A2	05/08/2003	Czech, G, et al.						
	WO-2004/012246A2	02/05/2004	Bonser, D. J., et al.						

	OT	HER DOCUMENTS NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No 1		
		"International Search Report and the Written Opinion of the International Searching Authority, or the Declaration for Application No. PCT/US2004/029209, date mailed December 22, 2004", 15 pages	
		LIU, W., et al., "Generating Sub-30nm Poly-Silicon Gates Using PECVD Amorphous Carbon as Hardmask and Anti-Reflective Coating", <u>Proceedings of the SPIE, 5040</u> , Optical Microlithography XVI, Yen, A, (ed.),(02/25/2003),841-848	
		SHIEH, J, et al., "Characteristics of Fluorinated Amorphous Carbon Films and Implementation of 0.15 micron Cu/a-C:F Damascene Interconnection", <u>Journal of Vacuum Science and Technology</u> , 19, (May, 2001),780-787	

EXAMINER DATE CONSIDERED